



UNITED STATES PATENT AND TRADEMARK OFFICE

BEST AVAILABLE COPY

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,097	08/06/2001	Erik Lindgren	AN06162US/0150	9462

7590

07/02/2003

Richard P. Fennelly
Akzo Nobel Inc.
7 Livingstone Avenue
Dobbs Ferry, NY 10522-3408

EXAMINER

CHIN, PETER

ART UNIT

PAPER NUMBER

1731

DATE MAILED: 07/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/923,097

Examiner

Peter Chin

Applicant(s)

LINDGREN ET AL.

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-113 is/are pending in the application.
- 4a) Of the above claim(s) 8-100 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 101-113 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-7,101-105 are rejected under 35 U.S.C. 102(b/e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ettl et al (6,001,166).

Ettl et al adds an aqueous dispersion of reactive size containing anionic polymer containing at least one aromatic group and a cationic polymer containing at least one aromatic group.

Lin discloses anionic dispersant that is a hydrophobic formaldehyde condensate of naphthalene sulfonates and phenol sulfates, columns 2 and 9. A cationic polymer dispersant is also used and is a cationic starch that can have aryl or alkyl aryl substituent in the cationic amine group of the starch molecule. Whether or not the cationic starch is characterized as a "promoter" as in the present claims or as a dispersant in Ettl et al, the starch is the same as claimed. Thus, the present claims do not patentably define over Ettl et al. Therefore, Ettl et al anticipates or obviously shows the claimed invention.

2. Claims 1-7,101-108 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin (6,268,414) in view of Ueda (Laid Open Application 1992-363301).

Lin adds an anionic dispersant, a formaldehyde condensate of naphthalene, phenol sulfonate or phenol sulfate that are hydrophobic, column 9. A second cationic dispersant is used and include cationic starches. It would have been obvious to employ cationic starches that have been used before and especially those that have imparted superior properties to the reactive size. Cationic starches containing cationic groups with alkyaryl and aryl groups are well known for dispersing reactive cellulose size as

evidenced by Ueda and thus it would have been obvious to employ the aryl or alkylaryl bearing substituent in the cationic group of the cationic starch in Lin.

3. Claims 109-113 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin (6,268,414) in view of Ueda (Laid Open Application 1992-363301).

In addition to the reasons given, it is noted that the use of anionic microparticulates such as silica and bentonite is part of a well known and conventional retention system and is used for high cationic demand "dirty" stock having considerable amounts of recycle fiber and/or mechanical pulp would have been obvious as evidenced by Cauley et al or Depasquale et al. The conductivities of these stocks are commonly above 1500 to 3000 microsiemens as shown by these two references.

4. Applicant's election with traverse of the election in Paper No. 6 is acknowledged. The traversal is on the ground(s) that there would be no undue burden. This is not found persuasive because there is undue burden to search the hundreds of possible combination of species of the claimed mixture.

The requirement is still deemed proper and is therefore made FINAL.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Chin whose telephone number is (703) 308-2046. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (703) 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

Application/Control Number: 09/923,097
Art Unit: 1731

BEST AVAILABLE COPY

Page 4

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.



Peter Chin
Primary Examiner
Art Unit 1731